STATEMENT OF LEGAL AND FACTUAL BASIS

Cinergy Solutions of Narrows, LLC
Narrows, Virginia

Permit No. VA-21418
Permit Date: March 12, 2003, amended July 18, 2003 & August 17, 2004
Registration No. 21418
AIRS ID No. 51-071-0062

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, the Celco plant of Celanese Acetate has applied for a Title V Operating Permit for its cellulose acetate flake and fiber manufacturing facility located at Route 460, 4 miles east of the town of Narrows, VA. The Department has reviewed the application and prepared a Title V Operating Permit. On May 2, 2003, Celanese Acetate LLC announced that ownership and operation of the equipment associated with the Celco Plant Utilities Department and its fuel-burning equipment (other than the industrial process furnaces located in the Celco plant acetic anhydride manufacturing process unit) would be transferred to Cinergy Solutions of Narrows, LLC as of June 30, 2003. As a result of this transfer of ownership and operation, the Title V Operating Permit dated March 12, 2003 for the Celanese Acetate Celco plant has been split into two Title V operating permits.

This August 17, 2004 amendment incorporates only NO_x Trading requirements applicable to the source and previously identified as Future Applicable Requirements in the Statement of Basis.

FACILITY INFORMATION

Permittee
Cinergy Solutions of Narrows, L.L.C.
3520 Virginia Avenue,
Narrows, Virginia 24124

Responsible Official
Scott Abramson
Vice President of Operations

Facility
Cinergy Solutions of Narrows, L.L.C.
Route 460, 4 miles East of Narrows, VA
Giles County, Virginia

Contact Person
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(585) 749-6078

NO_x Budget Trading Account Info.
ORIS Code/EIA Facility ID. N0.: 52089
NATS ID No.: 052089
052089BLR007
052089BLR008

Authorized Account Representative
Deborah Stockstill
Celanese Acetate, LLC
2300 Archdale Drive
Charlotte, N.C. 28210

SOURCE DESCRIPTION

Cinergy Solutions plant source description:

SIC Codes: 4939

This facility is co-located with the Celanese Acetate LLC Celco plant. This facility produces steam and electricity solely for the Celanese Acetate LLC Celco plant in industrial boilers. The facility also supplies cooling water, process water, and industrial process refrigeration solely for the Celanese Acetate LLC Celco plant. Together, Cinergy Solutions of Narrows, LLC and the Celanese Acetate LLC Celco plant are a Title V major source of PM_{10}, CO, SO_2, NO_x, VOC and total HAPs. This source is located in an attainment area for all pollutants, and is a PSD major source. Two of the units at the source are NO_x Budget Trading Sources. The facility was previously owned and operated by Celanese Acetate LLC and was permitted under several minor NSR permits and includes existing "grandfathered" equipment. A state operating permit was issued to the Celanese Acetate LLC Celco plant on August 2, 2002 which incorporated all of the conditions that were still in effect from previously issued NSR permits. A Title V operating permit was issued to the Celanese Acetate LLC Celco plant on March 12, 2003 which incorporated all of the conditions from the state operating permit and all other federally enforceable applicable requirements.

Cinergy Solutions became the owner and operator of the utilities equipment at the Celco plant in Narrows, Virginia effective June 30, 2003. Thus, the conditions from Celco's Title V operating permit pertaining to the utilities equipment transferred to Cinergy Solutions on June 30, 2003. The interpretation on the date of transfer of this permit to Cinergy Solutions is that Cinergy is considered to be part of a single source in conjunction with Celco, for purposes of determining applicability of non-attainment area new source review (NSR), prevention of significant deterioration (PSD) requirements, and Title V operating permit requirements. Further

modifications of the two facilities that make up the single source shall be addressed together to calculate net emissions increases for comparison with NSR and PSD significance levels. Also, both facilities will be considered a single source for any NAAQs attainment issues.
This Title V Operating Permit is issued for the Utilities operations that supply steam, electricity, cooling water, process water, and potable water solely to the Celanese Acetate Celco plant as described below.

Celanese Acetate Celco plant source description:
SIC Codes: - Production falls under Standard Classification (SIC) Codes 2821-Plastics, Materials, and Resins; 2823- Cellulosic Manmade Fibers; 2869- Industrial Organic Chemicals, Not Elsewhere Classified; and 3471-Electroplating, Plating, Polishing, Anodizing, and Coloring.

The Celco Plant is located in Narrows, Virginia along the New River in Giles County. The Celco facility has been in operation since 1939. Plant property elevation within the production areas is approximately 1560 feet above mean sea level (MSL), elevations at the landfill are higher. All production facilities are designed to operate 24 hours per day, 365 days per year.

Celco's CA flake and fiber manufacturing process uses acetic acid, acetic anhydride, and cellulose (wood pulp) as raw materials. Acetic acid is recovered during CA production and a portion is converted to acetic anhydride for internal use in the process.

The Celco facility was covered by numerous New Source Review permits. For the ease of the Celco plant and the Virginia Department of Environmental Quality, all of these New Source Review permits were combined into one State Operating permit dated August 2, 2002. The conditions of the state operating permit relating to the utilities equipment were transferred to Cinergy Solutions effective June 30, 2003.

PTE

The combined potential emissions from both the Celanese Acetate Celco plant and from the Cinergy Solutions of Narrows, LLC plan are above Title V levels at the Celco facility for PM10, CO, SOx, NOx, and VOCs. Potential to emit for combined HAPs is also greater than 25 tons/yr. These two sources combined emit the following HAPs: acetonitrile, benzene, 1, 3- butadiene, chlorine, chromium, ethylene glycol, n-Hexane, hydrochloric acid, methanol, methyl ethyl ketone, and methylene chloride.

COMPLIANCE STATUS

The Celanese Acetate Celco plant, including the equipment and operations whose ownership and operation were transferred to Cinergy Solutions of Narrows, LLC on June 30, 2003 has been inspected at least once per year. A full compliance evaluation of this facility, including a site

visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units are grouped as follows:

Fuel Burning Equipment – Boilers Nos. 1 through 9

Utilities Complex

EMISSIONS INVENTORY

The following table represents the emissions released from the entire Celco plant, including equipment and facilities owned and operated by Celanese Acetate as well as by Cinergy Solutions of Narrows, LLC.

Pollutant	2001 Emissions (tons/yr)
PM	146.57 tons/yr
PM 10	123.44 tons/yr
SO_2	7,426.68 tons/yr
VOCs	489.05 tons/yr
NO_2	4,297.17 tons/yr
CO	122.07 tons/yr
HCL	645.80 tons/yr
HF	9.67 tons/yr
Methylene Chloride	39.10 tons/yr
Methyl Ethyl Ketone	76.00 tons/yr
N-Hexane	138 tons/yr
Lead	0.17 tons/yr

EMISSION UNIT APPLICABLE REQUIREMENTS – Fuel Burning Equipment.

The Cinergy Solutions of Narrows, LLC plant produces steam and electricity by burning coal, natural gas and/or No. 2 fuel oil in 9 boilers. Boilers # 1-7 are existing boilers and are fueled by coal. Boiler #7 was installed prior to 1970. Particulate emissions from boilers #1-7 are controlled by the use of electrostatic precipitators. Boiler #8 is a new source and is fueled by both natural gas and distillate oil. Boiler #9 is a new source and is fired solely by natural gas. Boiler #9 is subject to CFR part 60 Subpart Db-Standards of Performance for Industrial

Commercial Steam Generating Units. NOx emissions from boilers #7, #8 and #9 are controlled by Low NOx Burners. Boiler #9 is equipped with a Continuous Emission Monitoring System which measures the emissions of NOx.

Limitations:

1. **Boiler No. 8**
   Visible Emissions from the boiler stack No. 8 shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
   (9 VAC 5-50-80, Condition II.A.1 of 8/2/2002 SOP and 9 VAC 5-50-20)

2. **Boiler No. 8**
   The maximum sulfur content of the oil to be burned in Boiler No. 8 shall not exceed 0.2 percent by weight per shipment.
   (9 VAC 5-50-260 & Condition II.A.2 of 8/2/2002 SOP)

3. **Boiler No. 8**
   The approved fuels for Boiler No. 8 are natural gas and distillate oil. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and Materials, ASTM D396-78 "Standard Specification for Fuel Oils." A change in the fuels may require a permit to modify and operate.
   (9 VAC 5-50-260 and Condition II.A.3 of 8/2/2002 SOP)

4. **Boiler No. 8 Fuel Consumption Limit**

   a. Boiler No. 8 shall consume no more than 1,150 million cubic feet of natural gas per year, when natural gas is the only fuel burned, calculated monthly as the sum of each consecutive twelve (12) month period.

   b. Boiler No. 8 shall consume no more than 4.2 million gallons of distillate oil and 226.0 million cubic feet of natural gas per year, calculated monthly as the sum of each consecutive twelve (12) month period.

   c. The natural gas consumption limit identified in b. may be increased up to the limit identified in a. above, by reducing annual allowed distillate oil consumption according to the following equation:

      Natural Gas Limit = $226.0 \times 10^6 + 220 \times (4.2 \times 10^6 - DOC)$
      where:
      DOC = annual distillate oil consumption in gallons, calculated monthly as the sum of the previous consecutive 12 month period.

For each month that Boiler No. 8 is operated, the permittee shall identify and record under which scenario, limit a., b. or c. above, the boiler is operating and record the allowed fuel consumption for that scenario.
(9 VAC 5-50-50 H, 9 VAC 5-170-160, Condition II.A.4 of 8/2/2002 SOP)

5. **Boiler No. 8**

Emissions from the operation of Boiler No. 8 shall not exceed the limits specified below:

PM	14.0 lbs/hr 0.0552 lbs/million BTU input	
PM-10	14.0 lbs/hr 0.0552 lbs/million BTU input	
Sulfur Dioxide	52.1 lbs/hr	60.6 tons/yr
Nitrogen Oxides (as NO_2)	0.10 lbs/million BTU input	57.5 tons/yr

(9 VAC 5-50-260 & Condition II.A.5 of 8/2/2002 SOP)

6. **Boiler Nos. 8 & 9**

NO_x emissions from the no. 8 and no. 9 boilers shall be controlled by the use of Low NO_x Burners.
(9 VAC 5-50-260, Condition II.A.6 of 8/2/2002 SOP)

7. **Boiler No. 9**

Boiler No. 9 shall be operated in accordance with 40 CFR 60, Subpart Db. Terms included in conditions of this permit that are related to Boiler No. 9 and that contain terms and conditions from 40 CFR Part 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units,-shall have the meaning as defined in 40 CFR 60.2 and 40 CFR 60.40b.
(9 VAC 5-170-160, 40 CFR 60.40b & Condition II.A.7 of 8/2/2002 SOP)

8. **Boiler No. 9**

The approved fuel for Boiler No. 9 is natural gas. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-170-160 & Condition II.A.8 of 8/2/2002 SOP)

9. **Boiler No. 9**
   Visible Emissions from the boiler No. 9 stack shall not exceed 10 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 27 percent opacity, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
   (9 VAC 5-50-20, 9 VAC 5-50-260 & Condition II.A.9 of 8/2/2002 SOP)

10. **Boiler No. 9 Fuel Consumption Limit**
    Boiler No. 9 shall consume no more than 1,100 million cubic feet of natural gas per year, calculated monthly as the sum of each consecutive twelve (12) month period.
    (9 VAC 5-50-260 and Condition II.A.10 of 8/2/2002 SOP)

11. **Boiler No. 9**
    Emissions from the operation of Boiler No. 9 shall not exceed the limits specified below:

PM	1.35 lbs/hr	4.2 tons/yr
PM-10	1.35 lbs/hr	4.2 tons/yr
Nitrogen Oxides (as NO_2)	12.5 lbs/hr 0.07 lbs/million BTU input	38.5 tons/yr
CO	15.0 lbs/hr	46.2 tons/yr
Volatile Organic Compounds	1.0 lbs/hr	3.0 tons/yr

    (9 VAC 5-50-260 & Conditions II.A.11 of 8/2/2002 SOP)

12. **Boiler Nos. 1, 2, 3, 4, 5, 6, & 7**
    Hourly SO_2 emissions from boilers 1 through 7 and from the rail car coal thawing pit burners shall not exceed 2.64 lb/10^6 Btu heat input at total capacity.
    (9 VAC 5-40-930)

13. **Boiler Nos. 1, 2, 3, 4, 5, 6 & 7**
    Particulate emissions from the boilers 1 through 7 shall be controlled by the use of Electrostatic Precipitators (ESPs) or an equivalent device as approved by DEQ.
    (9 VAC 5-20-170 & 9 VAC 5-80-110)

14. **Boiler Nos. 1, 2, 3, 4, 5, 6 & 7**

Particulate emissions from the boilers 1 through 7 and from the rail car coal thawing pit burners shall not exceed 0.17 lbs./ MM Btu. and 234 lbs./hr, according to the following particulate emission allocation table. The particulate emissions that are allocated to each emissions unit are used to calculate the total limit but are not limits for each individual unit:

Unit Heat Input Capacity (MM Btu/hr)	Description	Allocated PM Emission (lb/hr)
91	Boiler #1- Coal-fired	15.3
91	Boiler #2- Coal-fired	15.3
184	Boiler #3- Coal-fired	31.0
184	Boiler #4- Coal-fired	31.0
246	Boiler #5- Coal-fired	41.4
246	Boiler #6- Coal-fired	41.4
322	Boiler #7- Coal-fired	54.2
1.25(each burner)	Rail Car Thawing Pit Burners- #2 fuel oil-fired (10 total)	0.2/ burner
1389.0	**Total**	234 lbs/hr

(9 VAC 5-40-910 & 9 VAC 5-80-110)

15. Boiler Nos. 1, 2, 3, 4, 5, 6 & 7

Visible Emissions from each boiler stack shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60 percent opacity, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-40-940 & 9 VAC 5-80-110)

Monitoring/O & M/Recordkeeping:

The permit includes requirements for monitoring and maintaining records of all monitoring and testing required by the permit. The inspections, maintenance, monitoring and recordkeeping requirements in this section, plus monitoring and recordkeeping under the Facility Wide and General Conditions Sections below, constitute the periodic monitoring requirements for this equipment group. The monitoring and records include:

1. **Boiler No. 9 CEMS**
   A Continuous Emission Monitoring System (CEMS), meeting the design specifications of 40 CFR Part 60, Appendix B, shall be installed to measure and record the emissions of NO_x from the Boiler No. 9 stack as lbs/MMBtu. The CEMS shall be installed, calibrated, maintained, audited and operated in accordance with the requirements of 40 CFR 60.13, Part 60 NSPS Subpart Db and Appendices B and F or DEQ approved procedures which are equivalent to the requirements of 40 CFR 60.13 and Appendices B and F. Data shall be reduced to 30 day rolling averages. The Span Value for the NO_x monitor shall be 500 ppm in accordance with 40 CFR Part 60, Subpart Db. The 1-hour average nitrogen oxides emission rates measured by the boiler No. 9 CEM shall be expressed in ng/J or lb/million Btu heat input. This data shall be used to calculate average nitrogen oxides emission rates. The annual relative accuracy test audit (RATA) specified in NSPS 40 CFR 60 Appendix F 5.1.1 is not required for the boiler NOx CEM unless requested by the Board.
   (9 VAC 5-50-40, 40 CFR 60 Subpart Db & Condition II.B.1 of 2002 SOP)

2. Operation & Maintenance Procedures - The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to the boilers and related air pollution control equipment which affect such emissions:

   a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance for the boilers and ESPs.

   b. Develop an inspection schedule, monthly at a minimum, to insure operational integrity of the boilers and ESPs, and maintain records of inspection results.

   c. Have available written operating procedures for the boilers and ESPs. These procedures shall be based on the manufacturer's recommendations, at a minimum, if such recommendations exist.

   d. Train operators in the proper operation of the boilers and ESPs and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

   Records of maintenance, inspections and training shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.
   (9 VAC 5-40-20 E, 9 VAC 5-50-20 E and Condition II.B.2 of 8/2/2002 SOP)

3. Electrostatic Precipitators controlling the particulate emissions from boilers Nos. 1 through 7 shall be equipped with devices to continuously measure primary voltage and amperage. The permittee shall check and record the primary voltage and amperage for the ESPs on each boiler at least once each calendar week that the boiler is operating. These devices shall be operated continuously except for brief periods of equipment maintenance and malfunction.

   (9 VAC 5-40-20 E)

4. **Boiler No. 7 COMS**
   Continuous Opacity Monitoring System, meeting the design specifications of 40 CFR Part 60, Appendix B, shall be installed to measure and record the opacity of emissions from the stack. The COMS shall be installed, calibrated, maintained and operated in accordance with Appendix B or DEQ approved procedures which are equivalent to the requirements of 40 CFR 60.13 and Appendix B. Data shall be reduced to six minute averages.
   (9 VAC 5-40-1000 B, 9 VAC 5-40-41 B, & 9 VAC 5-80-110)

Recordkeeping -

1. The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil to be burned in boiler no. 8. Each fuel supplier certification shall include the following:

   a. The name of the fuel supplier,

   b. The date on which the oil was received,

   c. The volume of distillate oil delivered in the shipment,

   d. A statement that the oil complies with the American Society for Testing and Materials specifications for fuel oil numbers 1 and 2, and

   e. The sulfur content of the oil.

   (9 VAC 5-50-50 F & H, 9 VAC 5-50-260 & 9 VAC 5-170-160, Condition II.C.1 of 8/2/2002 SOP)

2. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of

such records shall be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:

a. The daily, monthly, and annual consumption of natural gas (in million cubic feet) and distillate oil (in 1000 gallons), if applicable, for Boiler Nos. 8 & 9. The annual consumption shall be calculated monthly as the sum of each consecutive twelve (12) month period.

b. All fuel oil supplier certifications for the oil burned in boiler No. 8.

c. The sulfur content of the oil burned in boiler No. 8 and of the coal burned in boilers No. 1 through No. 7.

d. The fuel consumption operating scenario that Boiler No. 8 is operating under for each month the boiler operates.

e. Maintenance/Inspection reports and operator training records.

f. The annual emissions of NO_x for Boiler No. 8, calculated monthly, as the sum of each consecutive twelve (12) month period.

g. The fuel consumption limit that Boiler No. 8 is operating under for each month the boiler operates.

h. For boiler No. 9, the calculated annual capacity factor for natural gas each calendar month (the annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month), average hourly and 30-day average NOx emission rates, 30-day average NOx excess emissions with explanations; days of lost data with explanations; data excluded from average emission rate, identification of “F” factors used in calculations, times of full span exceedances and descriptions of CEM modifications.

i. For boiler No. 7, all opacity data reduced to 6-minute averages. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period. Data recorded during periods of continuous system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages.

j. For boiler No. 7, all measurements, including COMS, monitoring device, and performance testing measurements; all COMS performance evaluations; all COMS or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices.

k. Emission factors used to calculate the emissions of these pollutants with an emission limitation in this section of the permit (PM-10, VOC, CO, SO2).

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-50-50, 9 VAC 5-170-160, Condition II.C.2 of 8/2/2002 SOP)

3. The permittee shall maintain records of boilers No. 7, 8, and 9 startup, shutdown and malfunction, any malfunction of the low NOx burners (air pollution control equipment), and if applicable, any periods when the CEM/COM is inoperative.
(9 VAC 5-50-50 B, 9 VAC 5-40-50 B & Condition II.C.3 of 8/2/2002 SOP)

4. The permittee shall maintain records of the required training including a statement of the time, place and nature of the training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the boiler(s). These procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.
(9 VAC 5-40-20.E., 9 VAC 5-50-20.E, 9 VAC 5-40-50, 9 VAC 5-50-50, 9 VAC 5-80-110, 9 VAC 5-170-160 & Condition II.C.4 of 8/2/2002 SOP~~)~~

Testing: The permit requires source tests for this process. The required testing is outlined below. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-50-30 & Condition II.D.1 of 8/2/2002 SOP)

2. **Boiler No. 8**
Once every 12,000 hours of operation or every three years, whichever is later, not to exceed 5 years without a stack test, NO_x emission testing shall be conducted on Boiler No. 8 in accordance with 40 CFR Part 60, Appendix A, Method 7, or alternative method approved by the DEQ. During the test, Boiler No. 8 must be operating at design conditions. The details

of the tests are to be arranged with the DEQ. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the DEQ, West Central Regional Office, within 60 days after test completion. In lieu of stack testing, a NOx continuous emission monitor shall be installed in accordance with 40 CFR 75.20. (9 VAC 5-50-30 G, 9 VAC 5-170-160 & Condition II.D.2 of 8/2/2002 SOP)

When testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method - Subject to DEQ approval at the time of the test (except for Method 9). (40 CFR Part 60, Appendix A)
PM/PM-10	EPA Method 5, or DEQ approved method
NOx	EPA Method 7
CO	EPA Method 10
VOC	40 CFR 60 Appendix A, Method 25 or 25A
SO2	Fuel analysis, EPA Method 6, or DEQ approved method
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

Reporting: Title V semi-annual reports of the results of monitoring and recordkeeping for each first and second half calendar year are required to be submitted to DEQ by each March 1 and September 1 respectively. The permittee is also required to submit quarterly reports of excess emissions for boilers #7 and #9. The report submittal deadline is extended from 30 days to 60 days to address the new requirement (VAC 5-80-110 K.1) that takes effect when this report becomes a "document required in a permit condition to be submitted to the Board." After Celco receives its T5 permit, these reports shall contain certification by a responsible official. The added time to submit the reports is required to ensure that a responsible official is available to certify these reports.

1. **Excess Emissions Reports – Boiler Nos. 7 & 9**

The permittee shall submit quarterly written reports of excess emissions to the Director, West Central Regional Office for Boilers Nos. 7 & 9 and to the EPA, Region III NSPS Compliance Coordinator, for Boiler No. 9. All quarterly reports shall be postmarked by the 60th day following the calendar quarter and shall contain the information required by 9 VAC 5-50-50 for Boilers Nos. 7 & 9 and 40 CFR 60.49b (g) for Boiler No. 9. If no excess emissions

occurred, the continuous systems have not been inoperative, repaired or adjusted during the calendar quarter, such information shall be included in the report.
(9 VAC 5-40-50, 9 VAC 5-50-50, 40 CFR 60.49b, and Condition II.E.1 of 8/2/2002 SOP)

EMISSION UNIT APPLICABLE REQUIREMENTS – Utilities Complex

The Utilities complex consists of the boiler house, cooling water treatment, coal handling and storage, and fly ash storage facilities. The Cinergy Solutions of Narrows, LLC plant produces steam and electricity by burning coal, natural gas and/or No. 2 fuel oil in 9 boilers. Coal is received by railcar and/or truck and is stockpiled behind the boiler house. The coal is conveyed from the coal pile, pulverized, and fed into the seven coal-fired boilers. Fly ash emitted from boilers Nos. 1 through 7 boilers is captured in electrostatic precipitators, collected, and is discharged to the dry ash storage silo. "Top" fly ash from boilers Nos. 3, 4, 5, and 6 will be discharged to the ash settling ponds only during malfunction and maintenance of the dry ash handling system. Bottom ash from boilers Nos. 1, 2, 3, 4, 5, 6, and 7 is discharged to the ash settling ponds.

Limitations

1. Collected fly ash from the collection system controlling particulate emissions from coal fired boilers 1-7 and last pass ash from coal fired boilers 1-7 shall be conveyed to the dry ash storage silo by the dry ash collection system or may be conveyed to the settling ponds through the wet ash handling system.
   (9 VAC 5-50-260 & Condition VII.A.1 of 8/2/2002 SOP)
2. Bottom ash from coal fired boilers 3, 4, 5, and 6 shall be conveyed to the dry ash storage silo by the dry ash collection system or may be conveyed to the settling ponds through the wet fly ash handling system.
   (9 VAC 5-50-260 & Condition VII.A.2 of 8/2/2002 SOP)

3. Particulate emissions from the dry ash handling system shall be controlled by one or both of two baghouse type fabric filters operating in parallel and each ducted to the dry ash collection lines. The baghouses shall be provided with adequate access for inspection.
   (9 VAC 5-50-260 & Condition VII.A.3 of 8/2/2002 SOP)

4. Particulate emissions from the dry ash storage silo shall be controlled by a baghouse type fabric filter. The baghouse shall be provided with adequate access for inspection and shall be in operation when the dry ash handling system is operating.
   (9 VAC 5-50-260 & Condition VII.A.4 of 8/2/2002 SOP)

5. Particulate emissions from the truck loading facility shall be controlled by processing all

collected ash sent to the truck loading facility through a mixer where water will be added to the ash to achieve a minimum moisture content sufficient to satisfy the opacity requirements in Condition 9 of this section on the Dry Ash Handling System. The mixer shall be provided with adequate access for inspection and shall be in operation whenever ash is being loaded on a truck.
(9 VAC 5-50-260 & Condition VII.A.5 of 8/2/2002 SOP)

6. Particulate emissions from dry ash transport shall be controlled by covering the transported ash with a tarpaulin or similar covering prior to the truck leaving the facility.
(9 VAC 5-50-260 & Condition VII.A.6 of 8/2/2002 SOP)

7. Each baghouse on the dry ash handling system shall achieve a control performance of no more than 0.01 grains per dry standard cubic foot of exhaust air as measured by a stack test.
(9 VAC 5-50-260 & Condition VII.A.7 of 8/2/2002 SOP)

8. Emissions from the operation of the dry ash collection system and the dry ash storage silo shall not exceed the limits specified below:

PM	0.01 gr/dscf	1.12 lbs/hr	4.91 tons/yr
PM-10	0.01 gr/dscf	1.12 lbs/hr	4.91 tons/yr

(9 VAC 5-50-260 & Condition VII.A.8 of 8/2/2002 SOP)

9. Visible emissions from the dry ash collection system, the dry ash storage silo, and the dry ash truck loading facility shall not exceed five percent (5%) opacity, except during one six-minute period in any one hour in which visible emissions shall not exceed twenty percent (20%) opacity, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-50-260, 9 VAC 5-50-20, & Condition VII.A.9 of 8/2/2002 SOP)

10. Process particulate emissions from the Celco Utilities operations (including flyash and coal handling and storage), other than from fuel burning equipment, shall be less than or equal to 187.3 lbs./hr.
(9 VAC 5-40-260.A)

Monitoring/O & M/Recordkeeping:

The permit includes requirements for monitoring and maintaining records of all monitoring and testing required by the permit. The inspections, maintenance, monitoring and recordkeeping requirements in this section, plus monitoring and recordkeeping under the Facility Wide and General Conditions Sections below, constitute the **periodic monitoring** requirements for this equipment group. The monitoring and records include:

1. The two baghouses controlling the dry ash collection system shall be equipped with devices to measure the differential pressure drop across the fabric filter at least once each hour that the baghouse is in operation. The measured pressure differential for each baghouse shall be recorded at least once per day, while the system is operating. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the baghouse is operating, except during minimal periods of malfunction. (9 VAC 5-80-10 H, 9 VAC 5-50-20 C, 9 VAC 5-50-260 & Condition VII.B.1 of 8/2/2002 SOP)

2. The two baghouses controlling the dry ash collection system shall be equipped with broken bag detectors to indicate tears or failures in the bags. Each occurrence of a broken bag alarm shall be recorded and the response indicated in the record. Each broken bag detector shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each broken bag detector shall be provided with adequate access for inspection and shall be in operation when the baghouse is operating, excepting minimal periods of malfunction. (9 VAC 5-80-10 H, 9 VAC 5-50-20 C, 9 VAC 5-50-260 & Condition VII.B.2 of 8/2/2002 SOP)

3. The dry ash collection system shall be equipped with permanent vacuum gauges and with connections to which a gauge can be attached to measure the suction (vacuum) in the ash handling system. The permanent vacuum gauges shall be located at the inlet to each vacuum pump. The connections shall be located at locations adequate to diagnose vacuum leaks in the system. Each gauge shall be installed, maintained, calibrated and operated in accordance with approved procedures, which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each gauge shall be provided with adequate access for inspection and shall be in operation when the ash handling system is operating. Reading of the vacuum at the gauges and at each upstream connection shall be recorded at the initial start-up of the system to provide a baseline for system operation. When vacuum readings are taken for maintenance, those readings shall be recorded.
(9 VAC 5-80-10 H, 9 VAC 5-50-20 C, 9 VAC 5-50-260 & Condition VII.B.3 of 8/2/2002 SOP)

4. Operation & Maintenance Procedures – The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:
    a. Develop a maintenance schedule and maintain records of all scheduled and non-

scheduled maintenance for the baghouses on the dry ash collection system, and the dry ash storage silo.

b. Develop an inspection schedule, monthly at a minimum, to insure the operational integrity of the baghouses on the dry ash collection system, and on the dry ash storage silo, and maintain records of inspection results.

c. Have available written operating procedures for the baghouses on the dry ash collection system, and on the dry ash storage silo. These procedures shall be based on the manufacturer's recommendations, at a minimum.

d. Train operators in the proper operation of the baghouses on the dry ash collection system, and on the dry ash storage silo. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

e. Maintain an inventory of spare parts that are needed to maintain the baghouses on the dry ash collection system, and on the dry ash storage silo~~,~~ in proper working order.

Records of maintenance, inspections and training shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.
(9 VAC 5-50-20E, Condition VII.B.4 of 8/2/2002 SOP)

Recordkeeping:

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:
   a. Annual hours of operation of the dry ash handling system, calculated monthly as the sum of each consecutive 12 month period.
   b. Differential pressure across the fabric filters in each baghouse.
   c. Records of all activations of the broken bag detectors and the response to the alarm.
   d. The records for the dry ash collection system of the suction pressures at the vacuum pumps and at various collection system connections when checked during maintenance activities.
   e. Results of all stack tests, visible emission evaluations and performance evaluations.
   f. Scheduled and unscheduled maintenance, and operator training for the dry ash handling system.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-50-50, 9 VAC 5-50-260, 9 VAC 5-80-10 H, Condition VII.C.1.a, b, c, d, e, & f of 8/2/2002 SOP)

Testing:
The permit does not require source tests for this process. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
   (9 VAC 5-50-30, Condition VII.D.1 of 8/2/2002 SOP)

2. If compliance testing is conducted in addition to the monitoring specified in this permit, the permittee shall use standardized test methods in accordance with procedures approved by the DEQ.
   (9 VAC 5-50-30, Condition VII.D.2 of 8/2/2002 SOP)

3. Upon request by the DEQ, the permittee shall conduct additional performance tests for particulate matter from the dry ash collection system and/or the dry ash storage silo to demonstrate compliance with the emission limits and control performance requirements contained in this permit. The details of the tests shall be arranged with the Director, West Central Regional Office.
   (9 VAC 5-50-30 G & Condition VII.D.3 of 8/2/2002 SOP)

4. Upon request by the DEQ, the permittee shall conduct additional visible emission evaluations from the dry ash collection system and/or the dry ash storage silo to demonstrate compliance with the visible emission limits contained in this permit. The details of the tests shall be arranged with the Director, West Central Regional Office.
   (9 VAC 5-50-30 G & Condition VII.D.4 of 8/2/2002 SOP)

Reporting: Title V semi-annual reports of the results of monitoring and recordkeeping for each first and second half calendar year are required to be submitted to DEQ by each March 1 and September 1 respectively.

Streamlined Requirements

Streamlining 1: Obsolete conditions: The conditions in the NSR permit are streamlined out which deal with new equipment installation time frames and startup initial notifications, initial visible emissions evaluations, and initial stack tests because these conditions are obsolete due to having been completed for all permitted equipment.

FACILITY-WIDE CONDITIONS

Existing Source Standard for Visible Emissions
Unless otherwise specified in this permit, no owner or other person shall cause or permit to be discharged into the atmosphere from any existing source any visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any one hour of not more than 60% opacity. Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section. Opacity shall be determined in accordance with 40 CFR, Part 60, Appendix A, Method 9. This standard applies for Boilers 1 through 7, which are existing sources (grandfathered equipment.)
(9 VAC 5-170-160, 9 VAC 5-80-110 & 9 VAC 5-40-80)

New Source Standard for Visible Emissions
Unless otherwise specified in this permit, no owner or other person shall cause or permit to be discharged into the atmosphere from any new source, visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any one hour of not more than 30% opacity. Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section. Opacity shall be determined in accordance with 40 CFR, Part 60, Appendix A, Method 9.
(9 VAC 5-170-160, 9 VAC 5-80-110 9 VAC 5-50-80, and Condition VIII.A.1 of 8/2/2002 SOP)

Violation of Ambient Air Quality Standard - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
(9 VAC 5-20-180 I, 9 VAC 5-80-110 & Condition , and Condition VIII.A.2 of 8/2/2002 SOP)

The permittee shall operate the affected facilities in compliance with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants; Subpart M- National Emission Standards for Asbestos (40 CFR Part 61 Subpart M)
(9 VAC 5-170-160, 9 VAC 5-80-110, 9 VAC 5-60-60, 9 VAC 5-60-70, 40 CFR 61 Subpart M & and Condition VIII.A.3 of 8/2/2002 SOP).

Process particulate emissions from the Celco site maintenance operations, including everything but fuel burning equipment, shall be less than or equal to 195.5 lbs./hr.
(9 VAC 5-40-260.A)

Visible Emissions

1. At least one time per calendar week, an observation for the presence of visible emissions from each emissions unit capable of generating opacity and with a visible emissions requirement specified in sections II through section IX of this permit shall be made. If visible emissions are observed the permittee shall:

   a. take timely corrective action and re-conduct the observation for the presence of visible emissions to ensure that the emissions unit capable of generating opacity has resumed operation with no visible emissions, or

   b. conduct a visible emission evaluation (VEE) in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six minutes, to assure visible emissions from the emissions unit capable of generating opacity are less than or equal to 20 percent opacity or the limit established for an emissions unit specified in sections II through section IX of this permit. If the 6-minute average opacity recorded during this VEE exceeds the opacity limitation established for an emissions unit specified in sections II through section IX of this permit that is capable of generating opacity, the observation period shall continue until a total of three 6-minute periods of observation have been completed. Timely corrective action shall be taken, if necessary, such that the emissions unit capable of generating opacity resumes operation within its opacity limit.

   c. If visible emissions inspections conducted during twelve (12) consecutive weeks show no visible emissions for a particular emissions unit capable of generating opacity, the permittee may reduce the monitoring frequency to once per month for that stack. The permittee shall notify the Director, West Central Regional Office, when the monitoring frequency is reduced from at least each calendar week to at least each calendar month. Anytime a monthly visible emissions evaluation (conducted in accordance with 2. above) show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.

   The permittee shall maintain an observation log to demonstrate compliance. The log shall include the date and time of the observations, name of the observer, whether or not there were visible emissions, any VEE recordings and any necessary corrective action.
   (9 VAC 5-80-110 E)

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or excess emissions, including those caused by upsets, within four daytime business hours.

STATE ONLY APPLICABLE REQUIREMENTS

The following Virginia Administrative Codes have specific requirements only enforceable by the State and have been identified as applicable by the applicant:

State toxics conditions are included in a state-only section of the source's state operating permit but are not included in the Title V.

NO_x Budget Trading Program Requirements

Equipment at this facility meets the definition of a NO_x Budget Unit and falls subject to the NO_x Budget emission limitations under 9 VAC 5-140-40 or for opt-in sources 9 VAC 5-140-800. As required by 9 VAC 5-140-200 A, each NO_x Budget source is required to have a federally enforceable permit. A separate, stand alone section has been added to the current Title V permit which represents the NO_x Budget permit. A requirement by reference was included in the Fuel Burning Section of the Title V permit referencing the attached NO_x Budget Trading Permit.

(9 VAC 5-140-10 through 9 VAC 5-140-900 (NO_x Trading Program Requirements))

FUTURE APPLICABLE REQUIREMENTS

40 CFR Part 96 Federal NO(x) Budget Trading Program (Boilers #7 & #8)

Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollu-tant(s) Emitted	Rated Capacity
UTILITIES DEPARTMENT				
3BHTK002S1	Kerosene Storage Tank (North)	9 VAC 5-80-720 B-2	VOC	< 500 gal
3BHTK003S1	Kerosene Storage Tank (South)	9 VAC 5-80-720 B-2	VOC	< 500 gal
3BHTK006S1	Boiler Treatment Chemical Storage Tank (Balance Polymer)	9 VAC 5-80-720 A-74	VOC	< 10,000 gal
3BHTK007S1	Boiler Treatment Chemical Storage Tank (Opti-Meen)	9 VAC 5-80-720 A-74	VOC	< 10,000 gal
3BHTK005S1	Ethylene Glycol Storage Tank	9 VAC 5-80-720 B-2	VOC	< 10,000 gal
V2918	No. 2 Fuel Oil Tank (2 MW Generator)	9 VAC 5-80-720 B-2	VOC	1930 gal

The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
9 VAC 5-80-720 B - Insignificant due to emission levels
9 VAC 5-80-720 C - Insignificant due to size or production rate

These insignificant emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

INAPPLICABLE REQUIREMENTS

None Identified

COMPLIANCE PLAN

NA because this facility is considered to be in compliance.

CONFIDENTIAL INFORMATION

There is no confidential information contained in the Title V application.

PUBLIC PARTICIPATION

Initial Notice:
A public notice regarding the draft permit was published in The Virginian Leader when these permit conditions were initially issued to Celanese Acetate, the Celco plant. EPA was given a chance to comment. The public comment period closed December 27, 2002. No comments were received from EPA or the public.

This Action, August 17, 2004:
Notice was made to EPA and affected states. EPA comment period ended on The permit effective date, since minor amendment to incorporate Federal Applicable Requirements was May 31, 2004. No comments were received.